

Search Title: pct/au2004/000937 aerofoil diffuser hsg User: cpatok - KURT TOBLER, S3-64  
 PAN: 96-299129, Page 1 of 1, Thu Aug 5 16:02:54, VIEWED MARKED

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\*OILT= Q55

96-299129/30

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Wind wheel blade with elements connected to each other forming channel - elements are made as rigidly connected head part, fairing and tail, placed coaxially forming circular channels

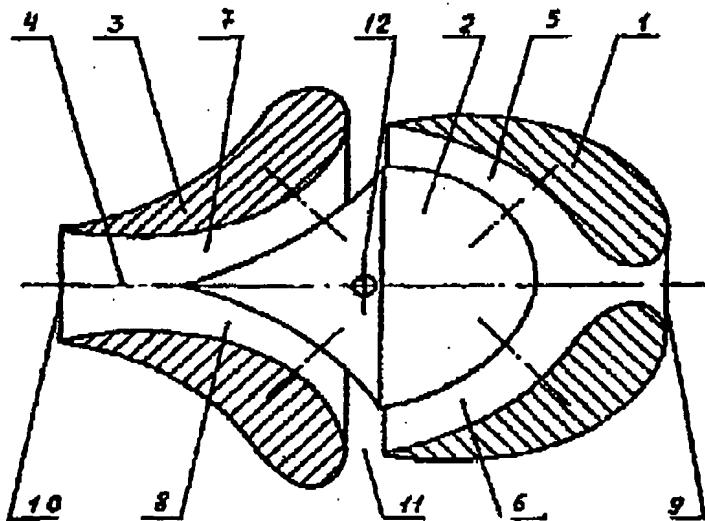
OIL THERMAL MINING RES PRODN ASSOC 91.02.07 91SU-4921287  
 (95.11.27) F03D 1/06, 3/06

The blade as elements connected to each other and forming a channel. The elements are made as a head part (1), a fairing (2) and a tail (3), placed coaxially forming circular channels (5,6,7,8). The tail part and the tail are formed by rotation of the a wing profile with positive and negative curvature about axis. The fairing is made as a rotation body with conical and semi-spherical parts directed towards the tail and a head part respectively. The tail and the head part ends are opened.

When the wind air stream with a velocity of V enters through openings (9) to air channels (5,6,7,8) it becomes an inner wind stream with a velocity V1 which at the end inner edge of the head part (1) effectively acts as a jet pump. In the same way the air flow through openings (10) of the tail (3) act as a jet pump, and prevents the stream breaking away from the tail outer surface forming circulation vector about the tail profile.

USE/ADVANTAGE - In wind driven and hydraulic machines. efficiency is increased and formation of vortexes at blade ends is prevented. Bul. 33/27.11.95 (7pp Dwg.No.1/7)

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